

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-37. (Canceled)

38. (Currently Amended) A method of enhancing a lymphocyte mediated or immunoglobulin mediated immune response ~~to a vaccine~~ against an infectious disease, in a mammal in need thereof, ~~wherein the enhancement is compared to a lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone,~~ comprising co-administering to the mammal a therapeutically effective amount of Escherichia coli heat labile enterotoxin B subunit (EtxB)<sub>1</sub>, ~~wherein the EtxB is free from whole toxin and is not linked to an antigen, and co-administering the an antigen vaccine, wherein the EtxB is free from whole toxin and is not linked to the antigen, wherein the antigen is a virus antigen from the herpes virus family, wherein the combination of EtxB and antigen are a vaccine and wherein the enhancement is compared to a~~ lymphocyte mediated or immunoglobulin mediated immune response generated by the administration of EtxB alone, thereby enhancing the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against an infectious disease compared to the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against an infectious disease after administration of the vaccine alone.

39. (Previously Presented) The method according to claim 38, wherein the EtxB increases the levels of B and T cell lymphocyte response.

40. (Canceled)

41. (Currently Amended) The method according to claim ~~38~~ 40, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV),

Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

42. (Previously Presented) The method according to claim 41, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

43. (Canceled)

44. (Currently Amended) The method according to claim 38 ~~43~~, wherein the said EtxB and antigen are administered to the said mammalian subject in an amount which is effective to increase the mammalian subject's levels of B and T cell lymphocyte response to the antigen.

45-48. (Canceled)

49. (Currently Amended) A method of enhancing a B and T cell lymphocyte mediated or immunoglobulin mediated immune response to a vaccine against an infectious disease, in a mammal in need thereof, ~~wherein the enhancement is compared to a lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone,~~ comprising administering Escherichia coli heat labile enterotoxin B subunit (EtxB) in conjunction with administration of an antigen associated with an infectious disease, wherein the EtxB is free from whole toxin and is not linked to the antigen, to the mammal in an amount which is effective to increase the mammalian subject's levels of B and T cell lymphocyte response to the antigen ~~and co-administering the vaccine, wherein the combination of EtxB and antigen are a vaccine, wherein the antigen is a virus antigen from the~~ herpes virus family, and wherein the enhancement is compared to a lymphocyte mediated or immunoglobulin mediated immune response generated by the administration of EtxB alone, thereby enhancing the B and T cell lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease compared to the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone.

50. (Canceled)

51. (Currently Amended) The method according to claim ~~49~~ 50, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

52. (Previously Presented) The method according to claim 51, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

53. (Canceled)

54. (Currently Amended) A method of generating a lymphocyte mediated or immunoglobulin mediated immune response, in a mammal in need thereof, comprising administering to the mammal ~~[[a]]~~ between 50 and 100 µg of Escherichia coli heat labile enterotoxin B subunit (EtxB), wherein the EtxB is free from whole toxin<sub>2</sub> and an antigenic determinant, wherein the EtxB and antigenic determinant are not linked to form a single active agent.

55. (Previously Presented) The method of claim 54, wherein the EtxB and antigenic determinant are administered to the mammal in need thereof in multiple doses.

56. (Previously Presented) The method according to claim 54, wherein the EtxB increases the levels of B and T cell lymphocyte response.

57. (Previously Presented) The method according to claim 54, wherein the antigenic determinant is a virus antigen from the herpes virus family.

58. (Previously Presented) The method according to claim 57, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1),

Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

59. (Previously Presented) The method according to claim 58, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

60. (Previously Presented) A method of enhancing a B and T cell lymphocyte mediated or immunoglobulin mediated immune response, in a mammal in need thereof, comprising administering between 50 and 100 µg of Escherichia coli heat labile enterotoxin B subunit (EtxB) in conjunction with administration of an antigenic determinant associated with an infectious disease, EtxB is free from whole toxin and is not linked to the antigen, and wherein the EtxB and antigenic determinant are not linked to form a single active agent.

61. (Previously Presented) The method of claim 60, wherein the EtxB and antigenic determinant are administered to the mammal in need thereof in multiple doses.

62. (Previously Presented) The method according to claim 60, wherein the antigenic determinant is a virus antigen from the herpes virus family.

63. (Previously Presented) The method according to claim 62, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

64. (Previously Presented) The method according to claim 63, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

65. (New) A method for producing protective immunity in a mammal in need thereof, comprising administering to the mammal EtxB in conjunction with administration of an antigen

associated with an infectious disease, wherein the EtxB is free from whole toxin and is not linked to the antigen, to the mammal in an amount effective to provide protective immunity.

66. (New) The method of claim 65, wherein the EtxB and antigenic determinant are administered to the mammal in need thereof in multiple doses.

66. (New) The method according to claim 65, wherein the antigenic determinant is a virus antigen from the herpes virus family.

67. (New) The method according to claim 66, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

68. (New) The method according to claim 67, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.